
STATUTORY INSTRUMENTS

2008 No. 2924

The Merchant Shipping (Prevention of Air Pollution from Ships) Regulations 2008

PART 3

Control of emissions from ships

Ozone-depleting substances

20.—(1) The deliberate emission of an ozone-depleting substance from a ship is prohibited.

(2) For the purposes of this regulation “deliberate emission” includes an emission occurring in the course of maintaining, servicing, repairing or disposing of systems or equipment, but does not include minimal releases associated with the recapture or recycling of an ozone-depleting substance.

(3) New installations which involve the introduction on a ship, other than a United Kingdom ship, of an ozone-depleting substance are prohibited.

(4) Prior to 1st January 2020, paragraph (3) has effect as if after “substance” there were inserted “other than hydrochlorofluorocarbons”.

Nitrogen oxides

21.—(1) Subject to paragraph (2), this regulation applies to—

- (a) every diesel engine with a power output of more than 130 kW which is installed on a ship constructed on or after 1st January 2000; and
- (b) every diesel engine with a power output of more than 130 kW which is installed on a ship and which undergoes or has undergone a major conversion on or after 1st January 2000.

(2) This regulation does not apply to any engine referred to in Schedule 2.

(3) Where a diesel engine is installed on a United Kingdom ship engaged solely in voyages to ports or offshore terminals within United Kingdom waters, and—

- (a) that ship was constructed; or
- (b) the engine underwent a major conversion,

before 19th May 2005, the Secretary of State may on application by the owner of the ship direct that this regulation does not apply to that engine.

(4) Subject to paragraph (7), the operation of a diesel engine is prohibited, except where the emission of nitrogen oxide (calculated as the total weighted emission of NO₂) from the engine is no more than—

- (a) 17.0 g/kWh when n is less than 130 rpm;
- (b) $45.0 \times n^{-0.2}$ g/kWh when n is 130 or more but less than 2000 rpm;
- (c) 9.8 g/kWh when n is 2000 rpm or more,

where n = rated engine speed (crankshaft revolutions per minute).

(5) When assessing under paragraph (4) the emission of nitrogen oxide from a diesel engine using fuel composed of blends of hydrocarbons derived from petroleum refining, the test procedure and measurement methods must be in accordance with the NO_x Technical Code.

(6) The owner of a ship must ensure that the emission of nitrogen oxide from a diesel engine that is installed on that ship and that has undergone a major conversion is recorded in accordance with the NO_x Technical Code and approved by the Certifying Authority.

(7) Notwithstanding paragraph (4), the operation of a diesel engine is permitted when either an exhaust gas cleaning system or any other equivalent method, approved in accordance with Merchant Shipping Notice 1734 (M+F) or Merchant Shipping Notice 1735 (M+F) as appropriate, is applied to the engine to meet the emission standards in paragraph (4).

(8) In this regulation “major conversion” means a modification of an engine where—

- (a) the engine is replaced by a new engine built on or after 1st January 2000; or
- (b) any substantial modification, as defined in the NO_x Technical Code, is made to the engine; or
- (c) the maximum continuous rating of the engine is increased by more than 10 per cent.

Sulphur oxides

22.—(1) Subject to paragraph (2), the sulphur content of any fuel oil used on board a ship must not exceed 4.5 per cent by mass.

(2) A ship within a sulphur oxide emission control area must comply with at least one of the following conditions—

- (a) the sulphur content of any fuel oil used on board the ship must not exceed 1.5 per cent by mass;
 - (b) an approved exhaust gas cleaning system is applied to reduce the total emission of sulphur oxide, from both auxiliary and main propulsion engines, to 6.0g/kW h or less calculated as the total weight of sulphur dioxide emission;
 - (c) any other technological method to limit sulphur oxide emissions is used that has been approved for the purposes of these Regulations by the Secretary of State in accordance with the provisions of a Merchant Shipping Notice.
- (3) The master of any ship using separate fuel oils to comply with paragraph (2)(a) must—
- (a) allow sufficient time for the fuel oil service system to be fully flushed of all fuels containing sulphur exceeding 1.5 per cent by mass prior to entry into a sulphur oxide emission control area; and
 - (b) record the date, time and position of the ship when any fuel changeover operation is completed and the volume in each tank at that time of the fuel oils having a sulphur content of 1.5 per cent or less by mass.

(4) The master must ensure that waste streams from the use of equipment approved pursuant to paragraph (2)(b) are not discharged into a port, harbour or estuary unless it is thoroughly documented that those waste streams will have no adverse impact on the ecosystem of the port, harbour or estuary.

(5) The master of a United Kingdom ship making a record pursuant to paragraph (3)(b) must make it in a log book in the format prescribed in Appendix 6 to Merchant Shipping Notice 1819 (M+F).

(6) In this regulation “approved exhaust gas cleaning system” means an exhaust gas cleaning system approved in accordance with Merchant Shipping Notice 1734 (M+F) or Merchant Shipping Notice 1735 (M+F) as appropriate.

Volatile organic compounds

23.—(1) The operation by a harbour authority or terminal operator of a vapour emission control system for volatile organic compounds is prohibited unless the Secretary of State has given his written approval for that system.

(2) A harbour authority or terminal operator operating a vapour emission control system for volatile organic compounds must comply with Schedule 4 to Merchant Shipping Notice 1819 (M+F).

(3) The owner and master of a United Kingdom tanker subject to vapour emission control in a harbour or terminal notified to the IMO as a designated harbour or terminal pursuant to the Convention must comply with Schedule 4 to Merchant Shipping Notice 1819 (M+F).

(4) The owner and master of any tanker, other than a United Kingdom tanker, in United Kingdom waters that is subject to vapour emission control in a harbour or terminal designated by the Secretary of State must ensure that the tanker is fitted with an approved vapour emission collection system that is fully operational.

(5) In paragraph (4) an approved vapour emission collection system is a vapour emission system that has been approved by the flag state pursuant to Annex VI.

(6) The master shall, on demand, produce to the harbour authority, terminal operator or surveyor evidence of the approval referred to in paragraph (5).

(7) This regulation only applies to a gas carrier if the type of loading and containment systems allow safe retention of non-methane volatile organic compounds on board or their safe return ashore.

Shipboard incineration

24.—(1) Subject to paragraph (6), all shipboard incineration must take place in a shipboard incinerator.

(2) Subject to paragraph (12), the owner of a ship on which a shipboard incinerator was installed after 31st December 1999 shall, on demand, demonstrate to a surveyor that the incinerator complies with Merchant Shipping Notice 1734 (M+F).

(3) Where a shipboard incinerator was installed on or before 18th May 2005 on a United Kingdom ship solely engaged in voyages within United Kingdom waters, the Secretary of State may on application by the owner direct that paragraph (2) does not apply to that incinerator.

(4) Shipboard incineration of the following is prohibited—

- (a) the residues of any substances or materials referred to in Annex I, II or III of the Convention which have been carried as cargo in the ship and any related contaminated packing materials;
- (b) polychlorinated biphenyls;
- (c) garbage containing more than traces of heavy metals; and
- (d) refined petroleum products containing halogen compounds.

(5) In this regulation “garbage” means all kinds of victual, domestic and operational wastes generated during the normal operation of a ship and liable to be disposed of continuously or periodically, but does not include fresh fish and parts thereof or sewage.

(6) While a ship is in a port, harbour or estuary, shipboard incineration of sewage sludge and sludge oil generated during the normal operation of the ship must not take place in the main or auxiliary power plant or boiler.

(7) Shipboard incineration of polyvinyl chlorides is prohibited except in a shipboard incinerator for which a Type Approval Certificate, has been issued in accordance with Merchant Shipping Notice 1734 (M+F).

(8) A ship with a shipboard incinerator installed on it must at all times carry an operating manual of the manufacturer of that incinerator, which specifies how to operate the incinerator within the limits described in Schedule 5 to Merchant Shipping Notice 1819 (M+F).

(9) Every person responsible for the operation of a shipboard incinerator must be trained and capable of implementing the guidance provided in the manufacturer's operating manual.

(10) Combustion flue gas outlet temperatures must be monitored at all times and the waste must not be fed into a continuous-feed shipboard incinerator when the temperature is below 850°C.

(11) No batch-loaded shipboard incinerator is to be used if the temperature in the combustion chamber fails to reach 600°C within 5 minutes of start-up.

(12) The Secretary of State may approve the design, installation and operation of alternative shipboard thermal waste treatment devices that meet or exceed the requirements of this regulation for use instead of one issued in accordance with Merchant Shipping Notice 1734 (M+F).

Fuel oil quality

25.—(1) This regulation does not apply to—

- (a) coal in its solid form;
- (b) nuclear fuels;
- (c) any hydrocarbon which is produced on a platform and used on that platform as fuel, if that use has been approved by the Secretary of State.

(2) A fuel oil supplier must ensure that fuel oil for combustion purposes delivered to a relevant ship for use on board that ship meets the requirements in paragraph (4) or (5) as applicable.

(3) The master of a relevant ship must ensure that fuel oil for combustion purposes used on board that ship meets the requirements of paragraph (4) or (5).

(4) Where the fuel oil is blends of hydrocarbons derived from petroleum refining, it must not—

- (a) incorporate more than a small amount of additives intended to improve some aspects of performance;
- (b) contain inorganic acid;
- (c) include any added substance or chemical waste which—
 - (i) jeopardises the safety of the relevant ship;
 - (ii) adversely affects the performance of the machinery;
 - (iii) is harmful to personnel; or
 - (iv) causes increased air pollution.

(5) Fuel oil for combustion purposes derived by methods other than petroleum refining must not—

- (a) exceed the appropriate sulphur content limit;
- (b) cause an engine to exceed the nitrogen oxide emission limits in regulation 21(4);
- (c) contain any inorganic acid;
- (d) jeopardise the safety of the relevant ship or adversely affect the performance of the machinery;
- (e) be harmful to personnel; or
- (f) include any added substance or chemical which causes additional air pollution.

(6) For the purposes of paragraph (5), the appropriate sulphur content limit means—

- (a) in the case fuel oil intended to be used in a sulphur oxide emission control area, not more than 1.5%,
 - (b) in the case of fuel oil not intended to be used in a sulphur oxide emission control area, not more than 4.5%.
- (7) A local supplier of fuel oil for combustion purposes delivered to and used on board a relevant ship must—
- (a) register with the Secretary of State in accordance with the provisions of Schedule 7 to Merchant Shipping Notice 1819 (M+F);
 - (b) provide the master of the relevant ship with a bunker delivery note containing the information set out in Schedule 3;
 - (c) provide a declaration in the bunker delivery note that is signed by the fuel oil supplier's representative that the fuel oil supplied conforms with regulations 14(1) or 14(4)(a) (as applicable) and 18(1) of Annex VI;
 - (d) retain a copy of the bunker delivery note for three years from the date of delivery; and
 - (e) not contaminate or blend the fuel so that it no longer conforms with the declaration required by sub-paragraph (c).
- (8) The master of a relevant ship must—
- (a) ensure that the bunker delivery note is kept on board the ship in a place so as to be readily available for inspection at all reasonable times;
 - (b) when requested by an inspector appointed by the Secretary of State to do so, certify whether any copy of the bunker delivery note is a true copy of the original; and
 - (c) ensure that the bunker delivery note is retained for a period of three years from the day on which the fuel oil has been delivered on board.
- (9) The local supplier's representative must provide a representative sample of the fuel oil delivered to accompany the bunker delivery note, and that sample must—
- (a) be collected in accordance with Schedule 7 and Appendix 1 to Merchant Shipping Notice 1819 (M+F);
 - (b) on completion of bunkering operations be sealed and signed by the local supplier's representative and the master or officer in charge of the bunkering operation; and
 - (c) be retained under the control of the master or owner of the ship for not less than twelve months starting with the day of delivery or until the fuel oil is substantially consumed if the fuel oil is not consumed in less than twelve months.
- (10) The bunker delivery note and the sample of fuel oil required under paragraphs (7), (8) and (9) must be available for inspection and verification at all reasonable times in accordance with Schedule 7 to Merchant Shipping Notice 1819 (M+F).
- (11) The bunker delivery note required under paragraphs (7) and (8) must be available for copies to be made at all reasonable times.
- (12) In this regulation—
- (a) “fuel oil supplier” means a person who is responsible for the final blend of fuel oil supplied to a local supplier of fuel oil;
 - (b) “fuel oil supplier's representative” means a person appointed by a fuel oil supplier to provide a declaration on the bunker delivery note that the fuel supplied complies with regulations 14(1) or 14(4)(a) (as applicable) and 18(1) of Annex VI;
 - (c) “local supplier of fuel oil” means a person who receives fuel oil with a view to its delivery to and use on board a relevant ship; and

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- (d) “local supplier’s representative” means a person who delivers fuel oil to a relevant ship on behalf of a local supplier of fuel oil; and
- (e) “relevant ship” means—
 - (i) a platform; or
 - (ii) a ship, other than a platform, of 400GT or above.